resource usage efficiency in HSDPA for UTRA TDD. The invention thus provides a new relationship between target SIR settings on DCH and HS-SICH for particular WTRUs and all usages thereof.

The foregoing description makes references to HSDPA in UTRA TDD as an example only and not as a limitation. The invention is applicable to other systems of wireless communication including dedicated and shared channels. Other variations and modifications consistent with the invention will be recognized by those of ordinary skill in the art.

What is claimed is:

1. A wireless transmit receive unit (WTRU) comprising:

a receiver operatively coupled to a processor, the receiver and processor configured to receive a first signal over a first channel, power commands for a second channel, and power commands for a third channel;

the processor configured to determine a transmission power level of the second channel in response to the second channel power commands and not the third channel power commands, and to determine a transmission power level of the third channel in response to the third channel power commands and not the second channel power commands; and

a transmitter operatively coupled to the processor, the transmitter and the processor configured to transmit in a transmission time interval at least one of a second signal over the second channel at a power level based on the determined transmission power level of the second channel and a third signal over the third channel at a power level based on the determined transmission power level of the third channel; wherein acknowledgments and negative acknowledgements to signals received over the first channel are sent on the third channel; and wherein the third channel is an uplink shared channel.

2. The WTRU of claim **1** wherein the first channel is a downlink shared channel.

3. The WTRU of claim **2** wherein each of the second and third channel power commands indicate one of a step up or a step down in transmission power level.

4. The WTRU of claim **2** wherein the third channel is used for transmission sporadically.

5. The WTRU of claim **2** wherein the second channel is assigned to the WTRU.

6. The WTRU of claim **2** wherein the second channel is a dedicated channel.

7. The WTRU of claim **2** wherein the third channel includes data in addition to the acknowledgements and negative acknowledgements.

8. A base station comprising:

a transmitter operatively coupled to a processor, the transmitter and the processor configured to transmit a first signal over a first channel, power commands for a second channel and power commands for a third channel;

a receiver operatively coupled to the processor, the receiver and the processor configured to receive in a transmission time interval at least one of a second signal over the second channel and a third signal over the third channel; wherein the third channel includes acknowledgments and negative acknowledgements to signals received over the first channel; and wherein the third channel is an uplink shared channel; and

wherein a transmission power level of the second channel is set in response to the second channel power commands and not the third channel power commands, and a transmission power level of the third channel is set in response to the third channel power commands and not the second channel power commands.

9. The base station of claim **8** wherein the first channel is a downlink shared channel, the second channel is a dedicated channel.

10. The base station of claim **9** wherein each of the second and third channel power commands indicate one of a step up or a step down in transmission power level.

11. The base station of claim **9** wherein the third channel is used for reception sporadically.

12. The base station of claim **9** wherein the second channel is assigned to a wireless transmit/receive unit (WTRU).

13. The base station of claim **9** wherein the third channel includes data in addition to the acknowledgements and negative acknowledgements.

14. The base station of claim **9** wherein the second channel is a dedicated channel.

15. The WTRU of claim **1** wherein a parameter is determined for at least a transmission time interval; wherein on a condition that at least one signal on the second channel is transmitted in the at least one transmission time interval, the transmission power level of the second channel is derived from the parameter; and wherein on a condition that at least one signal on the third channel is transmitted in the at least one transmission time interval, the transmission power level of the third channel is derived from the parameter.

16. The base station of claim **8** wherein a parameter is determined for at least a transmission time interval; wherein on a condition that at least one signal on the second channel is transmitted in the at least one transmission time interval, the transmission power level of the second channel is derived from the parameter; and wherein on a condition that at least one signal on the third channel is transmitted in the at least one transmission time interval, the transmission power level of the third channel is derived from the parameter.

17. A method comprising:

receiving, by a wireless transmit/receive unit (WTRU), a first signal over a first channel, power commands for a second channel and power commands for a third channel;

determining, by the WTRU, a transmission power level of the second channel in response to the second channel power commands and not the third channel power commands, and to determine a transmission power level of the third channel in response to the third channel power commands and not the second channel power commands; and

transmitting, by the WTRU, in a transmission time interval at least one of a second signal over the second channel at a power level based on the determined transmission power level of the second channel and a third signal over the third channel at a power level based on the determined transmission power level of the third channel; wherein acknowledgments and negative acknowledgements to signals received over the first channel are sent on the third channel; and wherein the third channel is an uplink shared channel.

18. The method of claim **17** wherein the first channel is a downlink shared channel.

19. The method of claim **18** wherein each of the second and third channel power commands indicate one of a step up or a step down in transmission power level.

20. The method of claim **18** wherein the third channel is used for transmission sporadically.